

REMARKS

Claims 11, 14, and 17-20 are objected to under 37 CFR 1.75(c) for being in improper form for multiple dependent claims. Claims 1, 13, and 14 are rejected under 35 U.S.C. 112 for being indefinite. Claims 1, 4, 5, 8, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,400,419 to Heinen. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of U.S. Patent 4,875,750 to Spaeth et al. Claims 6, 7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of U.S. Patent 4,969,712 to Westwood et al. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of DE 4422322 to ANT Nachrichtentechnik. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. The Applicants have carefully reviewed the prior art cited by the Examiner. The balance of these remarks will address the Examiner's rejections and the cited Prior art.

Claim Objections

The examiner has objected to claims 11, 14, and 17-20 under 37 CFR 1.75(c) as having improper form for a multiple dependent claim.

Applicants have amended claims 11, 14, and 17-20 so that a multiple dependent claim refers to other claims in the alternative only and no multiple dependent claim refers directly or indirectly to another multiple dependent claim. Claims 8 and 16 have been amended for similar reasons.

Claim 8

Claim 8 has been amended to depend from one of claims 5, 6, or 7.

Claims 11 and 14

Claims 11 and 14 have been amended to change them from multiple dependent claims to dependent claims.

Claims 16-20

Claims 16-20 have been amended to change them from multiple dependent claims to dependent claims.

Applicants respectfully submit that claims 8, 11, 14, and 16-20 are in proper form and requests withdrawal of the objection.

Claim Rejections – 35 U.S.C. 112

Claims 1, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for use of the phrase “and/or”.

Claim 1

Claim 1 has been amended by deleting “/or”. Support for the use of “and” without “/or”, as in the example of “transmitter and receiver module”, may be found in the specification in line 29 on page 10 and in lines 24-25 on page 12.

Claims 13 and 14

Claims 13 and 14 have been amended by deleting “/or”.

Applicants respectfully submit that amended claims 1, 13, and 14 distinctly claim the subject matter of the invention and requests allowance of the amended claims.

Claim Rejections – 35 U.S.C. 102

Claims 1, 4, 5, 8, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,400,419 to Heinen, hereinafter referred to as Heinen ‘419.

Claim 1

Claim 1 has been amended to include a limitation for exactly one waveguide to more clearly distinguish novel and nonobvious aspects of Applicants' invention from Heinen '419. For example, Heinen teaches in FIGS. 1-4 a module comprising at least two waveguides. A substrate having a waveguide layer in which is formed two strip shaped waveguides is described in column 2 lines 45-48 in Heinen '419. Furthermore, claim 1 of Heinen '419 includes "at least two strip-shaped waveguides". In comparison, Applicants' show in FIG. 1, 2, and 3 a transmitter and receiver module with exactly one integrated optical waveguide 51. Furthermore, Applicants' specification refers in the singular to "the waveguide of the planar optical circuit" in, for example, lines 29-30 of page 3 and elsewhere.

Applicants respectfully submit that amended claim 1 includes novel and nonobvious limitations not found in the cited prior art and respectfully requests withdrawal of the rejection.

Claims 4, 5, 8 and 11-14

In addition to novel and nonobvious limitations found in claims 4, 5, 8, and 11-14, these claims depend from amended claim 1 which has been shown to be novel and nonobvious. Therefore, by virtue of their dependency on claim 1, claims 4, 5, 8, and 11-14 should be in allowable form. Allowance of claims 4, 5, 8, and 11-14 is respectfully requested.

Claim Rejections – 35 U.S.C. 103

Claims 2 and 3

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen '419 in view of U.S. Patent 4,875,750 to Spaeth et al.

Applicants respectfully traverse the rejection of claims 2 and 3. Heinen '419 teaches and claims a module comprising at least two waveguides, as previously explained for Claim 1.

Patent 4,875,750 to Spaeth et al. neither teaches nor implies a device limited to exactly one waveguide and therefore fails to correct the deficiencies of Heinen '419. Applicants therefore request withdrawal of Examiner's rejection.

Claims 6, 7, 8, and 19

Claims 6, 7, 18, and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen.

Applicants respectfully traverse the rejection of claims 6, 7, 18, and 19. Heinen '419 teaches and claims a module comprising at least two waveguides, as previously explained for Claim 1, and neither teaches nor implies a device having exactly one waveguide, in contrast to a transmitter and receiver module having exactly one waveguide as shown in Applicants' specification, drawings, and claims. Applicants therefore request withdrawal of Examiner's rejection.

Claims 10 and 20

Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of U.S. Patent 4,969,712 to Westwood et al.

Applicants respectfully traverse the rejection of claims 10 and 20. Patent 4,969,712 to Westwood et al. neither teaches nor implies a device limited to exactly one waveguide and therefore fails to correct the deficiencies in Heinen '419. Applicants therefore request withdrawal of Examiner's rejection.

Claims 15, 16, and 17

Claims 15, 16, and 17 are rejected under 35 U.S.C. 103 as being unpatentable over Heinen in view of DE 4422322 to ANT Nachrichtentechnik.

Applicants respectfully traverses the rejection of claims 15, 16, and 17. Patent DE 4422322 neither teaches nor implies a device limited to exactly one waveguide and therefore fails

to correct the deficiencies in Heinen '419. Applicants therefore requests withdrawal of Examiner's rejection.

CONCLUSION

For all the reasons above, Applicants submit that the claims all define novel subject matter that is nonobvious. Therefore, allowance of these claims is submitted to be proper and is respectfully requested.

Applicants invite the Examiner to contact Applicants' representative as listed below for a telephonic interview if so doing would expedite the prosecution of the application.

Very respectfully submitted,



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